

ABSTRACT

A method of providing a low cost quantized nonlinear scaler for a continuous curve includes the steps of providing a quantized coefficient table representing an approximation of the nonlinear continuous curve; applying the table in hardware to locate coefficients in the table, and applying the coefficients to a scaling pipeline to get scaled data. The nonlinear approximation in the table is achieved by following the rules that the sampled data must be consistent, the quantization points must be consistent, the coefficient curve must be symmetric about its centerline, and the quantization values must be selected so that the sum of all coefficients values in the coefficient curve over all the source points for a given resultant point is always equal to a normalization value.